

Notice of Allowability

Application No.

10/763,583

Applicant(s)

LEI ET AL.

Examiner

Cheryl Lewis

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the applicants' communication received on Feb. 8, 2007, May 14, 2007, and July 20, 2007.
2. ☒ The allowed claim(s) is/are 1-9 and 11-19, renumbered as claims 1-18.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date See Continuation Sheet
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

/Cheryl Lewis/
Patent Examiner, A.U. 2167
August 1, 2007

Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 7/20/07; 2/8/07; 1/16/07; 10/31/06; 10/30/06; 7/31/06; 5/2/06; 2/13/06; 10/24/05; 10/13/05; 7/25/05; 5/20/05; & 7/22/04.

DETAILED ACTION

1. Claims 1-9 and 11-19 are allowed. These claims have been renumbered as claims 1-18.
2. The applicants have cancelled claims 10 and 20.

Drawings

3. The drawing filed on October 20, 2004 are accepted by the examiner.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in an interview with Brian Heckman on July 31, 2007.

5. The Specification has been amended as follows:

on page 1, paragraph [0002], line 1, after 10/247,323, insert Pat. No. 6631371;

at line 4 of paragraph [0002], after 09/167,092, insert Pat. No. 6487552;

line 6 of paragraph [0002], after 09/589,602, insert Pat. No. 6578037; and

at line 8 of paragraph [0002], after 09/872,896, insert Pat. No. 6587854.

Art Unit: 2167.

6. Claims 11-19 have been amended as follows:

11. (Currently Amended) A machine-readable storage medium carrying one or more sequences of instructions, which when executed by one or more processors, causes the one or more processors to perform a method comprising the steps of:
detecting that a database statement is issued;
wherein said database statement requires access to at least one column in a
table;
invoking a policy function which database metadata associates with at least one column
in a table;
receiving an expression returned by invoking said policy function;
rewriting said database statement by creating a modified database
statement that incorporates said expression;
wherein the modified database statement specifies, based on the expression,
whether to mask a value of the at least one column by returning a mask of the
value instead of the value; and
executing said modified database statement.

12. (Currently Amended) The machine readable storage medium of claim [1] 11,
wherein said database statement requests at least two values located in at
least two columns;
wherein each of the two values are located in a different one of the at least two
columns; and

Art Unit: 2167

wherein the step of executing the modified database statement includes at

least

returning at least one of the at least two values; and

returning a masked value instead of at least a second of the at least two values.

13. (Currently Amended) The machine-readable storage medium of claim [1] 11, wherein the expression is a condition expression.

14. (Currently Amended) The machine-readable storage medium of claim [1] 11, wherein the masked value is returned for rows
that are retrieved for the database statement issued,
that do not satisfy the condition, and
to which access privileges are granted.

15. (Currently Amended) The machine-readable storage medium of claim [1] 11,

[W]wherein said database metadata associates a list of one or more columns with a policy used for controlling access to the one or more columns; and

wherein the step of rewriting is performed if a match is found between the at least one column to which the database statement requires access and the list of one or more columns.

16. (Currently Amended) The machine-readable storage medium of claim [1] 11, wherein:
said database metadata associates a list of one or more columns with a policy used for
controlling access to the one or more columns; and
the step of rewriting said database statement by creating a modified
database statement is not performed if a match is not found between
the list of one or more columns and the at least one column to which the
database statement requires access.

17. (Currently Amended) The machine-readable storage medium of claim [1] 11, wherein the steps further comprise
creating the policy function that returns a condition expression;
wherein the step of creating the modified database statement includes
incorporating the condition expression and the database statement
into the modified database statement.

18. (Currently Amended) The machine-readable storage medium of claim [1] 17, wherein the steps further comprise creating a policy referencing the policy function
and specifying trigger columns that trigger implementing the policy.

19. (Currently Amended) The machine-readable storage medium of claim [1] 11, wherein the steps further comprise registering the policy function with a database

Art Unit: 2167

server, wherein the policy function returns a condition expression and the modified database statement is based on the condition expression.

REASONS FOR ALLOWANCE

7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not render obvious to one ordinarily skilled in the art at the time of applicant's invention nor anticipate the combination of claimed elements including 'invoking a policy function which database metadata associates with at least one column in a table' and 'rewriting said database statement by creating a modified database statement that incorporates said expression; wherein the modified database statement specifies, based on the expression, whether to mask a value of the at least one column by returning a mask of the value instead of the value' as recited in independent claim 1 and similarly recited in independent claim 11.

The remaining claims, 2-9 and 12-19 are dependent claims, thus these claims are patently distinct over the art of record for at least the above reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONCLUSION

8. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

O'Flaherty et al., "Privacy-Enhanced Database", Patent No. 6253203, 2 October 1998.

NAME OF CONTACT

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Lewis whose telephone number is (571) 272-4113. The examiner can normally be reached on 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

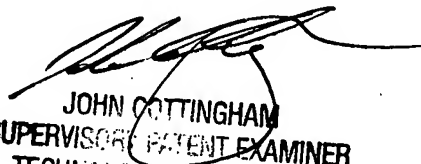
(571) 273-4113 (Use this FAX #, only after approval by Examiner, for "INFORMAL" or "DRAFT" communication. Examiners may request that a formal paper/amendment be faxed directly to them on occasions.).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/ Technology Center (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cheryl Lewis/
Patent Examiner, A.U. 2167
August 1, 2007


JOHN COTTINGHAM
SUPERVISOR, PATENT EXAMINER
TECHNOLOGY CENTER 2100